

CLAIMS AMENDMENTS

- 1 (ORIGINAL). A solid, granular, free flowing, agrochemical composition containing a salt of phosphorous acid and at least one other NPK nutrient, that is homogeneous in the chemical composition and uniform in particle size, that is water-soluble, and that comprises metal microelements.
- 2 (ORIGINAL). An agrochemical composition of claim 1, wherein at least one of the nutrient is chosen from the group consisting of monoammonium phosphate, monopotassium phosphate, dipotassium phosphate, potassium chloride, ammonium chloride, potassium sulfate, ammonium sulfate, and urea.
- 3 (CURRENTLY AMENDED). An agrochemical composition ~~of any one of claims 1 to 2~~ according to claim 1, wherein the salt of phosphorous acid is chosen from potassium salt, ammonium salt, and sodium salt.
- 4 (CURRENTLY AMENDED). An agrochemical composition ~~of any one of claims 1 to 3~~ according to claim 1, wherein at least one of the metal microelements is chosen from the group consisting of zinc, copper, iron, manganese, molybdenum, and boron.
- 5 (CURRENTLY AMENDED). An agrochemical composition ~~of any one of claims 1 to 4~~ according to claim 1, wherein the metal microelements are present as any commercially available salt.

6 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 4~~ according to claim 1, wherein the metal microelements are present in the form chosen from the group consisting of chloride, sulfate, molybdate, ethylenediaminetetraacetate, and boric acid.

7 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 6~~ according to claim 1, wherein the microelements act synergistically with salts of phosphorous acid.

8 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 7~~ according to claim 1, said composition additionally containing one or more additives that further enhance its fertilizing and pesticidal properties.

9 (ORIGINAL). An agrochemical composition of claim 8, wherein the additive is chosen from the group consisting of stimulant, pesticide, and surfactant.

10 (ORIGINAL). An agrochemical composition of claim 8, wherein the additive is humic acid.

11 (ORIGINAL). An agrochemical composition of claim 8, wherein the additive acts synergistically with salts of phosphorous acid.

12 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 11~~ according to claim 1, additionally containing one or more additives that modify functional or aesthetic properties of the particles.

13 (ORIGINAL). An agrochemical composition of claim 12, wherein the additive is chosen from the group consisting of surfactant and dye.

14 (CURRENTLY AMENDED). An agrochemical composition according to ~~any one of claims 1 to 13~~ claim 1, wherein the NPK nutrient, other than a salt of phosphorous acid, comprises monoammonium phosphate or monopotassium phosphate.

15 (CURRENTLY AMENDED) An agrochemical composition of ~~any one of any one of claims 1 to 14~~ according to claim 1, which contains said composition containing from 10 to 95 wt% salts of phosphorous acid.

16 (CURRENTLY AMENDED). An agrochemical ~~composition of any one of claims 1 to 15~~ according to claim 1, which contains said composition containing from 5 to 90 wt% of NPK nutrients, other than salts of phosphorous acid.

17 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 16~~ according to claim 1, which is said composition being completely dissolved when mixed with water at ambient temperatures, in the ratio of 10 parts of the solid to 90 parts of water.

18 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 16~~ according to claim 1, which is said composition being completely dissolved when mixed with water at ambient temperature, in the ratio 20 parts of the solid to 80 parts of water.

19 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 18~~ according to claim 1, which provides said composition resulting in a solution having pH 3.4-7.0, when dissolved 1 part in 100 parts of water.

20 (CURRENTLY AMENDED). An agrochemical composition of any one of claims 1 to 19, ~~which contains~~ said composition containing from 0% to 1% water.

21 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 20~~ according to claim 1, which contains said composition containing from 0.1 to 0.4 wt% water.

22 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 21~~ according to claim 1, which contains said composition containing from 0.005 wt% to 2 wt% microelements.

23 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 22~~ according to claim 1, which contains said composition containing from 15 to 35 wt% salts of phosphorous acid.

24 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 23~~ according to claim 1, which contains said composition containing from 65 to 85 wt% of NPK nutrients, other than salts of phosphorous acid.

25 (CURRENTLY AMENDED). An agrochemical composition of ~~any one of claims 1 to 24~~ according to claim 1, which contains said composition containing from 0.05 wt% to 0.5 wt% microelements.

26 (CURRENTLY AMENDED). An agrochemical composition of any one of claims 1 to 25 according to claim 1, which provides said composition resulting in a solution having pH 3.8-5.3, when dissolved 1 part in 100 parts of water.

27 (CURRENTLY AMENDED). An agrochemical composition ~~of any one of claims 1 to 26~~ according to claim 1, which said composition is a free flowing, solid particles, composition.

28 (CURRENTLY AMENDED). A process for the manufacture of an agrochemical composition ~~according to any one of claims 1-27~~, said process comprising i) blending and heating at a temperature from 60°C to 130°C a mixture containing phosphorous acid, at least one other NPK nutrient, metal microelements and other additives; ii) introducing a base into the mixture, thus at least partially neutralizing phosphorous acid, wherein the amount of the base is sufficient to provide that the pH of a 1% water solution of the final composition will be between 3.4 and 7.0; iii) homogenizing the mixture, while optionally lowering the pressure above the mixture; iv) and cooling the mixture, while obtaining a homogeneous, granular, free flowing and not caking material, containing from 0% to 1% water.

29 (ORIGINAL). A process according to claim 28, wherein the molten mixture is neutralized by a base of formula MR, wherein M is selected from potassium and ammonium, and R is selected from carbonate and hydroxide.

- 30 (ORIGINAL). A process according to claim 28, wherein the molten mixture is neutralized by potassium carbonate or potassium hydroxide.
- 31 (ORIGINAL). A process according to claim 28, wherein the components may be added to the mixture in any order.
- 32 (ORIGINAL). A process according to claim 28, wherein the components may be preheated in any order before forming the complete mixture.
- 33 (ORIGINAL). A process according to claim 28, wherein the complete mixture has a temperature between 60°C and 130°C.
- 34 (CURRENTLY AMENDED). A process according to claim 28, said process further comprising a molten mixture.
- 35 (ORIGINAL). A process according to claim 28, wherein the complete mixture is heated to a temperature between 61°C and 100°C.
- 36 (CURRENTLY AMENDED). A process according to claim 28, ~~which provides~~ said process yielding a granular composition homogeneous in chemical composition and uniform in particle-size.
- 37 (CURRENTLY AMENDED). A process according to claim 28, ~~which provides~~ said process yielding a granular, free flowing composition that contains from 0.1% to 0.4% water.

38 (CURRENTLY AMENDED). A process according to claim 28, ~~which provides~~ said process yielding a granular composition having hygroscopicity, as expressed by the critical relative humidity, from 50% to 65%.

39 (ORIGINAL). A process according to claim 28, wherein the pressure is lowered below 70 mm Hg.